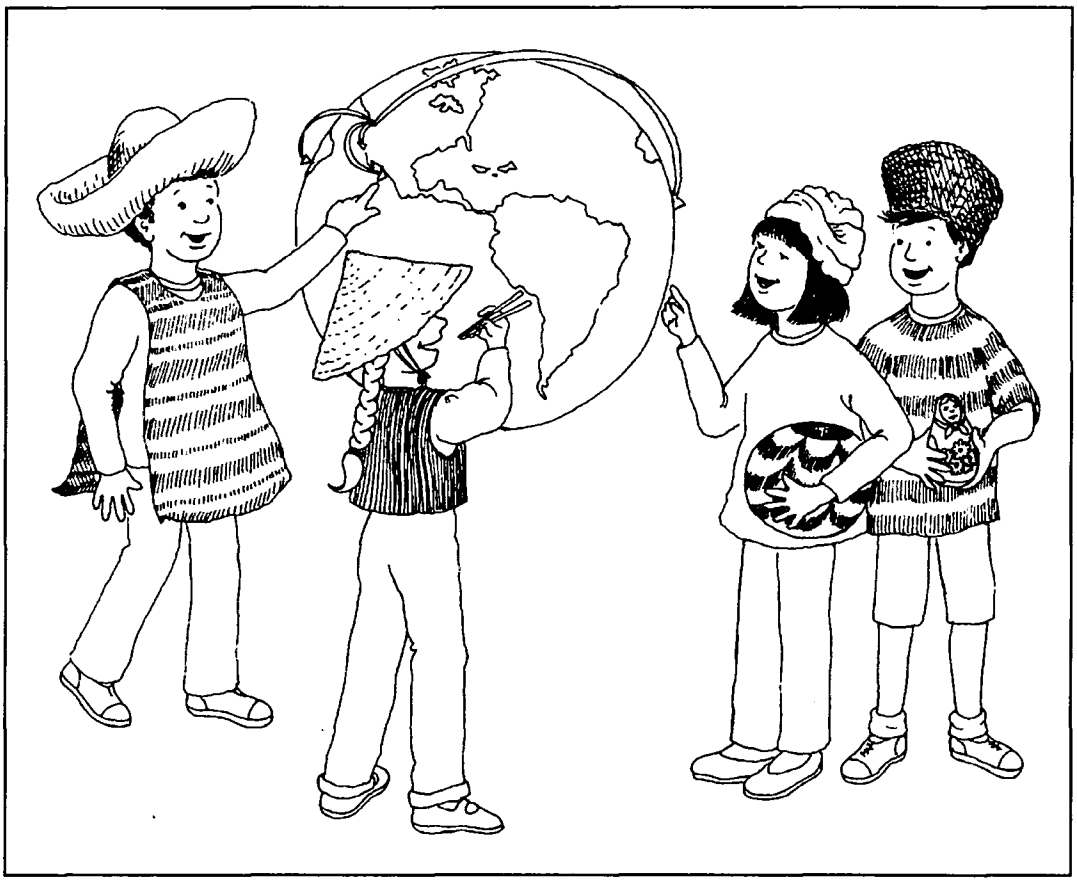
NUTRI-KIDS GO

Around the World



Teacher Guide
Expanded Food and Nutrition Education Program (EFNEP)
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Contents

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INTRODUCTION

Nutri-Kids Go Around the World

Welcome to nutrition education with the Nutri-Kids!

The purpose of this unit, *Nutri-Kids Go Around the World*, is to introduce third-grade children to food and food customs of other cultures, and to provide them with nutrition and health information they can use to live healthier lives. Stroke, heart disease, diabetes, obesity, and osteoporosis are examples of conditions that can be (but aren't always) linked to diet. Poor eating habits often are due to lack of knowledge about nutrition and health. These habits often result in health problems only after many years. Educating children early about healthy eating patterns will help them maintain good health and avoid preventable health problems.

This publication reflects the U.S. Dietary Guidelines, revised in 1990 by the U.S. Departments of Agriculture and Health and Human Services. These goals recommend that Americans:

- Eat a variety of foods.
- Maintain a healthy weight.
- Choose a diet low in fat, saturated fat, and cholesterol.
- Choose a diet with plenty of vegetables, fruits, and grain products.
- Use sugars only in moderation.
- Use salt and sodium only in moderation.
- Drink alcohol only in moderation.

Objectives

The main objectives of this publication are to:

- Help children understand that what they eat affects their current and future emotional, mental, and physical health.
- Encourage children to choose a healthy lifestyle.
- Help children understand where foods come from and how foods are prepared and stored.
- Acquaint children with foods and food customs in different cultures.
- Teach basic food preparation and food safety skills.
- Support the nutrition goals of the Oregon Department of Education.

Nutri-Kids Go Around the World was developed by the Oregon State University Extension Service Expanded Foods and Nutrition Education Program (EFNEP). It is intended for use in the classroom but may be used in after-school settings.

The program's format, content, and activities have been reviewed by OSU Extension nutrition, child development, and youth specialists. The concepts correspond to the Oregon Department of Education's Health Education Curriculum Goals, adopted in March 1988. According to these goals, the primary skills and experiences third-graders need to "design and implement a nutrition plan" based upon their lifelong dietary needs are:

- Eat a wide variety of healthful foods.
- Identify personal food intake and eating habits based on dietary/system (U.S. Dietary Guidelines).
- Identify eating habits which promote or detract from physical/emotional well-being.
- Identify nutritional needs for growth and development.
- Identify methods of food preparation and preservation that prevent food deterioration.
- Identify and evaluate influences on food choices (media, family, economic factors).
- Identify reliable sources of nutrition information.
- Express the relationship among nutrition behaviors, levels of fitness, safe living, and stress/risk taking management.

In order to fulfill these goals, the Nutri-Kids program has done the following:

It has incorporated foods that might be used by families from a variety of ethnic backgrounds and included daily food charts to make students more aware of what they eat.

It also has included healthy recipes, some of which don't need cooking and can be prepared in the classroom (facilities and rules permitting).

It has offered team and class activities that encourage exercise, outside research, and parent involvement.

Options

Nutri-Kids Go Around the World allows your students to learn nutrition information as they explore other cultures around the world. They will do this through each lesson's story, class discussion, library work, selected activities, and food preparation.

The lessons in *Nutri-Kids Go Around the World* have been prepared to allow you as much flexibility as possible. Several options are listed for each lesson. Read the options and decide which you can cover in your allotted time or will most interest your class. It may take more than one session to cover the options you have selected.

For instance, you may want to limit discussion to essential nutrition information. Or you may want to expand class discussion to include topics such as famine, drought, cultural similarities and differences, food preservation in different cultures, how cultures make different-tasting foods out of similar staples, food safety, obesity, and eating habits.

The options are designed for classrooms of 20 to 25 children. You will find instructions for each option in this teacher guide.

Each lesson's length will vary depending on which recipes and activities you choose. Activities and class discussions will take 10 to 20 minutes each. We strongly recommend parent involvement in some of the activities and food preparation. The nutrition goals are listed with each lesson and have been broken down by options for your convenience. A lesson plan is included in the front of this book. A bibliography also is included for your reference on page 29. You may know of other resources, or your school or local library may have additional offerings.

Plan ahead

Supplies or materials you might want to obtain for this unit:

- A world map or a mural with magazine pictures of children from around the world. (You could use this to show the location of the country discussed in each lesson.)
- A box with 26 manila folders to file the pages for the alphabet books (ongoing activity beginning in Lesson 1)
- Thermometer that registers 32 to 99°F (Lesson 1)
- Seeds, cups, potting soil, and dirt (Lesson 2)
- Chicken bones, vinegar, glass jars (Lesson 3)
- Recipe ingredients (Lessons 2–6)

You may need other materials for optional activities. (See activity pages.)

The lessons offered here are designed as an integrated approach that involves various senses and accommodates different learning styles. Food posters, ethnic music, and ethnic cookbooks may help reinforce concepts. You can use this publication solely as a nutrition unit or integrate it with science, math, or social studies lessons. For example, recipes can be science experiments or opportunities to expand vocabulary.

Pre- and post-tests have been included. Please administer them before beginning and just after completing the lessons.

Your candid evaluation is critical for the quality of this series. Keep this publication updated by completing the evaluation on pages 27–28. Please return the completed form after finishing the unit. Mail to: 4-H EFNEP (Expanded Foods and Nutrition Education Program), Oregon State University, 161 Milam, Corvallis, OR 97331-5106.

A variety of cooked and uncooked recipes have been included so that teachers can choose the ones that best suit their school's resources. The no-cook recipes include: Rooster's Beak, Summer Pudding, Minted Melon Salad, Yogurt and Cucumbers, and Smoothies. The recipes that require cooking include Lentil Salad (unless lentils are cooked beforehand), Groundnut Crunch, Groundnut Soup, Succotash, Indian Pudding, Popcorn, and Fried Rice Tofu and Vegetables.

Nutrition concepts

The nutrition concepts in *Nutri-Kids Go Around the World* are based on the Food Guide Pyramid developed by the U.S. Department of Agriculture to help people eat foods that promote good health.

Fruits and vegetables

Vegetables (3–4 servings at this age) are a good source of Vitamins A and C, fiber, and carbohydrates.

Fruits (2–3 servings for this age) also are a good source of vitamins A and C.

Cantaloupe, carrots, pumpkin, sweet potatoes, and other yellow-orange fruits and vegetables help eyes see at night (Vitamin A).

Dark green vegetables such as collard greens, kale, broccoli, and dark green lettuce contain Vitamin A, calcium (builds teeth and bones), and B vitamins that help the body use energy. (B vitamins

also help the nerves carry messages around in the body, a more visual but slightly advanced concept for third-graders.)

Oranges, berries, tomatoes, and peppers yield Vitamin C to help fix cuts and build gums.

Breads and cereals

Breads and cereals are fuel foods. Six to nine servings are now recommended to ensure that 7- to 10-year-olds obtain the bulk of calories from carbohydrates, not fats.

Whole grains and foods such as whole-grain breads are good sources of B vitamins, minerals, and fiber. Wheat, oats, rice, rye, and corn help keep the brain healthy and help the body use calories from other foods.

Dairy products

Children this age need two to three servings of dairy products to get enough calcium. Bones—living structures that are always rebuilding in young bodies—need a steady calcium supply. Calcium also helps the heart beat properly and helps stop bleeding.

Lactose intolerance is common among several ethnic groups. Encourage children with mild reactions to milk to try cheese or yogurt or to drink smaller glasses of milk with meals. Some ethnic foods, if eaten often, can be good sources of calcium—tahini or sesame seed paste, mustard greens, turnip greens, collard greens, and kale.

Meat and meat alternates

Meats, eggs, and other foods that come from animals are good sources of protein. Many foods have protein in them, including dried beans, milk, grains, and cereals like corn.

How many servings?

You may see recommendations for different numbers of servings. That is because calorie and nutrient needs vary during the lifetime. The overall recommendations are:

- 6 to 11 servings of breads and cereals
- 3 to 5 servings of vegetables
- 2 to 4 servings of fruit
- 2 to 3 servings of milk
- 2 to 3 servings of meat or meat alternates

The specific recommendations for various age groups fall within these ranges.

Protein is the "building block" nutrient. It is used to grow new skin, make longer muscles as you grow, fix cuts, and protect from illness. Many vegetarians eat eggs, milk, tofu, nuts, and foods that mix beans and grains. At this age, 2 to 2½ servings of protein foods are recommended.

Store meat in refrigerators to keep it safe to eat. Keep meat cold!

Caution foods

Caution foods aren't healthy foods. They are nutrient-poor. They are rich in one of the unhealthy three:

Sugar. In pop, cookies, cake, and candy.

Salt (sodium). In salted chips and nuts, pickles, and many sauces (soy sauce, barbecue sauce, catsup, mustard).

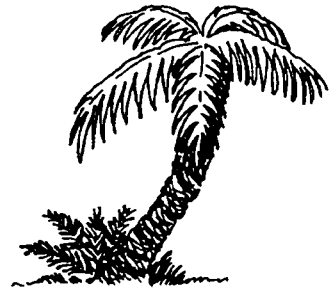
Fat. In pie, chips, fried doughnuts, chocolate, candy bars, some salad dressings, and fried foods like onion rings, french fries, and bacon.

There are several "essential fats" that we all need, but we need them in tiny amounts. Most Americans consume fat in unhealthy quantities. One of our nation's nutritional problems is obesity. The high fat content of our diets is a contributing factor.

However, children should never diet. Children need a wide variety of nutrients while they are growing; overweight children can't get the nutrients they need to grow from fat stores. Dieting during the growth period can result in children who don't reach their full height potential. The effects of childhood dieting on growing brains and muscles are not as well documented.

Other health problems can result from a high-fat diet, since Americans tend to eat fats at the expense of grains, particularly whole-grain breads and cereals, and fruits and vegetables. It is recommended that the bulk of daily calories come from the carbohydrates found in breads and cereals (preferably whole grains) and in fruits and vegetables.

Fat consumption should be reduced to 30 percent or less of the total daily calories consumed. Only 10 percent of total calories should come from saturated fats (animal fats; tropical oils such as coconut, palm kernel, and palm oils; and hydrogenated fats [solidified vegetable oil]).



Teacher Planning Guide

Lesson One

Introduction to program

Things to think about/pretest

What did I eat? Introduce food pyramid

Story—The trip begins

Foods and food customs in different cultures

When is a grape not a grape?

Activities: Reading a thermometer; who am I? (collage work, crayon, painting, writing); refrigerator game; alphabet books

Lesson Two

What did I eat?

Story—Cactus leaves, jicama, and mangoes (Mexico)

Fruits

What good are nutrients, anyway?

Recipes: Rooster's Beak, Summer Pudding, Minted Melon and Grapes

Activities: You are what you eat (planting seeds), fruit ID, relay race

Lesson Three

What did I eat?

Story—Sour cream, mushrooms, and black bread (Russia)

Milk foods

What good are my arms and legs?

Recipes: Smoothies, Cucumbers and Yogurt

Activities: Rubber chicken; Discussion: exercise—why it's good for you, how kids get exercise in different countries; collage work—types of exercise

Lesson Four

What did I eat?

Story—Eat with your fingers, not a fork (Ethiopia)

Meat and other protein foods

What has your head done for you lately?

"I'm my own best friend"

Recipes: Groundnut Soup, Groundnut Crunch, Lentil Salad

Activities: Discuss why students choose the foods they do; influences (friends, parents, advertising, etc.); healthy and unhealthy food habits; telling secrets—class activity; food recall

Lesson Five

What did I eat?

Story—Popcorn, turkey, and acorn soup (Native American foods)

Breads and cereals

Fiber

Draw a nutrient

Recipes: Succotash, Indian Pudding, Popcorn

Activities: Find the fiber, food ID, food sense game, relay race, food recall

Lesson Six

What did I eat?

Story—Chopsticks and bean curd (San Francisco's Chinatown)

Vegetables

Broccoli for breakfast?

Recipe: Fried Rice with Vegetables and Tofu

Activities: Food ID, viewless views, silent interpreter

Lesson Seven

What did I eat?

Pass it on (1 or 2)

Where do I learn more?

Mixed messages

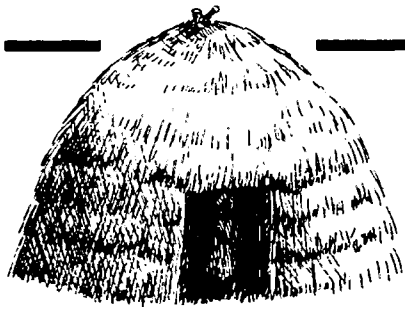
Activities: Selling food, silent interpreter, post-test

Appendix A: Teacher Evaluation

Appendix B: Bibliography

Additional resources for information on ethnic foods, stories, and recipes

Appendix C: Serving Size Reference Chart



LESSON ONE

Cultures and Customs

This lesson introduces children to nutrition awareness. They meet the Nutri-Kids and learn about their exploration of food and food customs in other cultures. Concepts of good nutrition are discussed, as well as food preservation methods used around the world.

Review

For the teacher: See nutrition concepts, page 5.

The food guide pyramid: Breads, vegetables, fruits, milk, and meats.

Daily servings: 6, 3, 2, 2, 2. Focus on eating a variety of foods each week. Page 32 in the student book is for students' reference.

Options

- Things to think about: Be aware, be safe, be active
- Pre-test
- What did I eat? Introduce the food pyramid
- Story
- Food and food customs in other cultures
- When is a grape not a grape?
- Activities

  How do I use a thermometer?

  Who am I? (collage, drawings, or tape)

  Refrigerator game

  Alphabet book

Pre- and post-tests

Pre- and post-tests are on pages 4 and 33 in the student book. Administer these before beginning any lessons and after finishing with these materials. This not only lets you know how much your students have learned, it helps us make the materials more effective. Your comments are valued.

What did I eat?

See page 6 in the student book. This activity is to introduce the food pyramid and make students aware of the nutritious and non-nutritious foods they eat.

1. Introduce the pyramid and tell students they will be learning about all the different levels in the pyramid during this unit. Introduce concept of 6-3-2-2-2 (recommended daily servings from each food group).
2. Send the sheet home with students or complete in class. Ask students to record the food they eat as soon as possible after meals and snacks—first thing in the morning and right after lunch.

Memories about snacks especially tend to be short. Have them write their tip of the pyramid foods (pop, candy) outside or at the top of the pyramid. Stress that treats, including chips and pop, are foods best eaten after healthy foods are eaten.

Story: The trip begins

As this program unit is set up, each lesson is introduced by the teacher reading to students a story about the Nutri-Kids visiting a different country or culture. They will visit Mexico, Russia, Ethiopia, and Chinatown in San Francisco. There also is a lesson on foods given to this culture by Native Americans. This opening story introduces the Nutri-Kids and the concept of culture.

Food and food customs in different cultures

This section is to stimulate student interest/discussion in different foods and food customs around the world.

You may want to divide the class in teams and assign or let the children choose which of these cultures they would like to research and report on. Give them a list of questions to answer about each culture or country, such as:

Where is the country?

What is the climate (weather) like? Compare it to our climate. What grows there?

What do people eat? Find at least one food in each food group. Which foods are different from what you eat? Which are the same?

What is happening there now? Is there anything in the news about events in that country?

Follow each story or report with class discussion. This can be wide ranging or limited to nutrition information. Questions that may stimulate discussion include:

What would it be like to live in that country?

What foods are or are not eaten there?

What do you eat that is similar to the foods they eat?

Why might the people of that country eat foods different from what students usually eat?

Climate, lack of electricity and appliances, lack of transportation, economic/cultural/religious differences, political upheaval, famine, and various other aspects of life that affect nutrition also could be addressed.

When is a grape not a grape?
See page 9 in the student book. Review and discuss foods the class has eaten that were canned, frozen, refrigerated, or preserved in other ways. How would it change their lives if those food preservation methods weren't available? How do people cope in countries that don't have widespread refrigeration? (They buy food daily or do without foods that need refrigeration.)

Discussion: Food safety
Foods need to be refrigerated to keep them safe to eat, and to maintain their quality.

Cooked food that is moist and low in acid is a perfect haven for bacteria that cause food poisoning. Refrigeration prevents the growth of most of these bacteria. Examples of moist, low-acid food include: cooked meat, poultry, seafood, and foods containing meat, poultry, or seafood (soups, casseroles, pot pies, lunch meat, hot dogs); cooked eggs and foods containing eggs; potato and pasta salads, pizza, gravy, stuffing, and cooked vegetables.

Vacuum-packaged meat, seafood, vegetables, and smoked seafood also need to be refrigerated.

The following foods need to be refrigerated to maintain their quality as well as their safety:

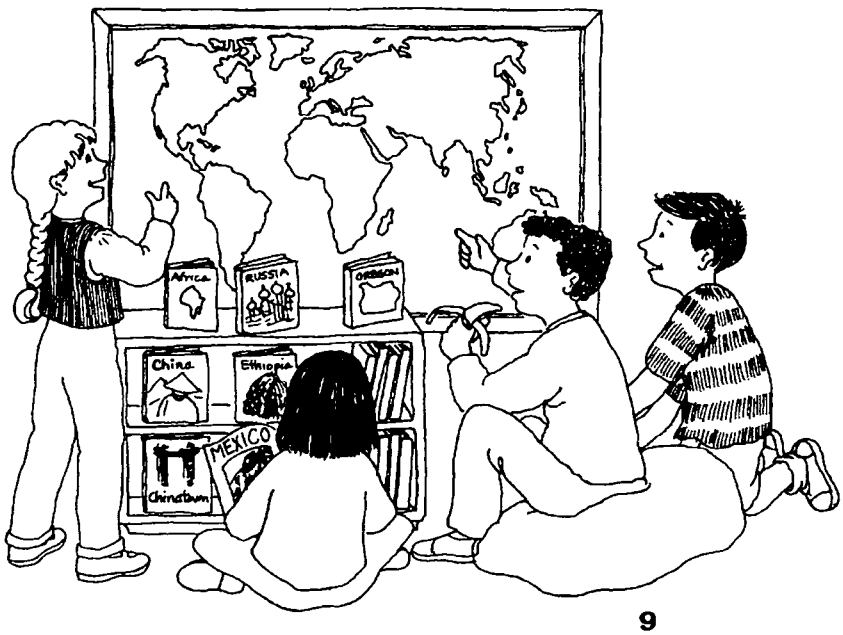
Raw eggs, raw meat, poultry, and seafood. Food poisoning bacteria grow in the intestinal tracts of animals, so animal products must be cooked thoroughly.

Dairy products—milk, yogurt, hard cheese. The quality of dairy products deteriorates rapidly at room temperature. Dairy products will be tasty and safe to eat beyond the expiration date if they have been handled properly.

Nuts, dried fruit. Mold can grow on these products. Refrigeration slows the growth of toxic mold.

The following foods can be stored safely at room temperature, but they'll retain their quality longer if refrigerated.

- Fresh fruits and vegetables
- Condiments (ketchup, mustard, relish, pickles, mayonnaise)
- Fats, oils, salad dressing, shortening
- Fruit juice
- Honey, syrup, jam, jelly
- Processed peanut butter (the raw kind has to be refrigerated)
- Whole grains



How long can foods be refrigerated? Most foods can be stored until they show signs of spoilage. These signs include an "off" odor, mold growth, and change in texture (slimy or runny). Smoked fish and fresh vegetables or herbs stored in oil should not be stored longer than 2 weeks in the refrigerator.

Mishandled perishable foods can make people sick even though they look and smell normal! The safety of moist, low-acid foods also depends on how they were handled before refrigeration. They should be prepared with clean hands, utensils, and work surfaces. Meat, poultry, eggs, and seafood should be cooked thoroughly. These foods should not be left at room temperature for longer than 2 to 3 hours after cooking.

Activities

How do I read a thermometer?
You will need a thermometer, ice, and a cup. Show the children how to read a thermometer. If you have both a digital and mercury thermometer available, show them both. Demonstrate the effect of body heat by having the children hold the thermometer in their hands, or by warming it in your hand.

Put some ice in a cup and place the thermometer in the center, where it can be read. Let the children take turns reading it.

Talk about the changes of water into ice and steam. Those changes happen at specific temperatures, a very important fact for cooking and preserving food. You might want to discuss the way freezing and boiling affects the foods they eat.

Who am I? Have the children describe themselves as they would to a person from another country. They can do this as a book, tape, or series of drawings, or by writing a letter. Have them include a recipe for their favorite food, the kinds of foods they like or don't like to eat, the climate,

crops grown in Oregon, celebrations they take part in, different customs their families may have around food (barbecuing on Sunday, special suppers, birthday cakes, holiday food, etc.) They could also do this as a collage, using pictures from magazines and newspapers.

Refrigerator game. Have various foods cut from coupons, the newspaper, or magazine ads. Have students decide 1) if that food has been preserved, and how; and 2) how best to preserve the food once it is opened—should it go in the refrigerator? In which section? Should it be covered or not? Should it be put in a plastic or glass container or left in the can?

Alphabet book. Create an alphabet book of nutritious foods for younger children. Have the children draw pictures of breads and cereals they know well, with the food's name. Each drawing will be one page. Make a "book box" with manila folders for each letter of the alphabet. Have the children file their drawings until they have made drawings for each food group (with each lesson). You can compile the books after completing this publication. Put in sturdy folders or bind by stringing yarn through punched holes. If you plan to give these to a daycare center, check to make sure your supplies you use are acceptable to the daycare provider.

Nutritional goals

What did I eat?

- Identify personal food intake and eating habits based on dietary system.
- Acquaint students with the concept of the food pyramid and recommended numbers of daily servings.

Story and class discussion: Food and food customs of different cultures

- Expand students' awareness of foods and food customs in other cultures.
- Ask questions that make students want to know more about foods and food customs of other countries.

When is a grape not a grape?

- Identify methods of food preparation and preservation that prevent food deterioration.

Reading a thermometer

- Understand the relationship between temperature and food safety.

Who am I?

- Identify foods that individual students like to eat.
- Identify diversity even among students in same classroom.

Refrigerator game

- Learn why, where, and for how long different items should be stored in refrigerator.

Alphabet book

- Identify foods in different food groups.

Story: The trip begins

"It is so nice outside today!" Tanisha said. She gazed longingly at the sunny playground. The other Nutri-Kids felt the same way. Marcus was restless, and Carlos and Liz were whispering.

BANG!

Tanisha jumped. Ms. Santos had dropped a book on the floor. That was her way of getting their attention.

"I know it is hard," Ms. Santos said softly, "to pay attention when the weather is so beautiful. We have had few sunny days, true?"

"Yes," Marcus and Tanisha said together. Carlos and Liz looked down and said nothing.

"If we were a class in Africa, a day like today would be normal. But rain might bring everyone outside to celebrate. Some areas in Africa haven't had a good rainy season for many years. It is very hard to grow any food when there's no rain.

"By the way, do you kids know what 'culture' means?" asked Ms. Santos.

"Like art and fancy food?" Marcus asked.

"Well, no. Some people use the word 'cultured' to describe a person who likes music, food, and art done in certain styles. I mean something else.

"Our culture is the way we live. It's the kinds of food we eat, the kinds of houses we live in, the holidays we observe, and the way we celebrate them. It's the way we act with family members and friends. All these things are part of our culture.

"In Guatemala, some poor children are expected to work like adults in the fields or at market. But here, children go to school. You can get in trouble for not going to school, and a business can get in trouble for hiring you.

"Food's a big part of everyone's culture," continued Ms. Santos. "So is the way people eat their food. For instance, in this country we usually eat three meals a day. But in some countries, people eat only two meals a day. Or they eat their big meal at lunchtime, instead of at night, like we do.

"People in other cultures also eat different kinds of food. For breakfast, you probably eat cold cereal or pancakes. If you lived in Mexico, you would probably eat tortillas and beans. If you lived in Vietnam, you might have fish soup and rice for breakfast."

The recess bell rang.

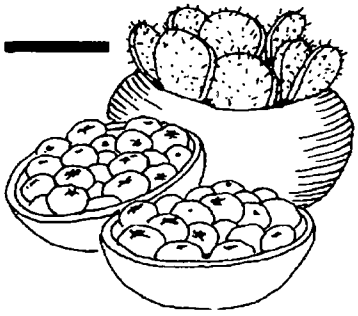
"Do you like learning about the foods people eat in other countries?" Ms. Santos asked.

"Yes!" the Nutri-Kids answered together.

"Well, then," Ms. Santos said, "Tomorrow we start a trip around the world! Where shall we start?

"Mexico!" yelled all the Nutri-Kids.

"Then Mexico it is," said Ms. Santos.



LESSON TWO

Nutrients

Lesson Two introduces children to the function of nutrients in the body. It also demonstrates the effects of adequate and poor nutrition on growing things and makes students more aware of what children in other countries eat.

Review

Food groups, if necessary

Options

- What did I eat?
- Story/team report/discussion
- Fruits
- What good are nutrients, anyway?
- Recipes
  Rooster's Beak
  Summer Pudding
  Greek Minted Melon and Grapes
- Activities
  You are what you eat (seed growing activity)
  Fruit ID game (teams or as a class)
  Relay races (teams)

Story, team report, and class discussion

The story, team report, and class discussion use the same structure as in Lesson One, page 8. Foods eaten in Mexico that may be unfamiliar to some students include: jicama (HI [i as in sit] ca-ma), nopales (no-PA-les—cactus leaves), chayote (chai-O-te—pear-shaped fruit), cilantro, chiles, pan dulce (sweet bread), plantains or platanos (PLA-ta-nos), mangoes, papaya, guava. If there are Hispanic students in your class, they or someone in their family may agree to give a talk about the foods they eat in their home.

What did I eat?

Discuss what the children have eaten as a class, or use page 6 in the student book.

Fruits

Review page 10 in the student book with the students. Review vitamins A and C. Discuss fiber and water.

If you are creating an alphabet book, have students choose different fruits and make drawings for book pages. Encourage a wide variety of letters so you can make several books.

What good are nutrients, anyway?

Review and discuss page 11 in the student book with your students. The student book directs them to write down what they had for breakfast or lunch and write a story or draw a picture about the nutrients in that meal. You may prefer to do a class mural based on today's cafeteria lunch and the nutrients it provides.

Recipes

Choose and prepare a recipe. Three different recipes are suggested for this lesson. They are found in the students' book. The recipes include utensils you will need. Food and serving supplies you will need to prepare the recipes in quantities for about 30 students to taste are given in the box on the next page.

Activities

You are what you eat. This is a long-term activity aimed at showing children the connection between nutrition and health. Have the children plant a vegetable or plant that grows quickly, such as peas or radishes, in two separate containers. Give one container (A) potting soil, light, and water. Give another (B) dirt, enough water to sprout, then place away from light, water only every other week.

As the plants grow (or don't grow), talk about why. Connect the plants' need for food and water to the children's need for adequate nutrition.

Discuss topics such as the following: What eating habits produce plants like the ones in containers A? Container B? What could happen to the people who have poor eating habits? Another category of eating habits involves overeating. What happens to people who eat too much?

Fruit ID game[1]

You will need a platter, tray, or pie tin, and a variety of fruits (or vegetables or cereals if using this activity in another lesson).

[1]This game is from *Eating Right is Basic*, University of California Cooperative Extension, 4H-Expanded Food and Nutrition Education Program, Publication #4H-EFNEP 4148.

Rooster's Beak

(two times the recipe in the student book)

4 small jicamas (about 2 pounds total)

8 oranges

pinch of salt

cayenne pepper to taste

30 plates and forks

Summer Pudding

(four times the recipe in the student book)

8 cups berries

2 cups sugar

1 teaspoon cinnamon

24 slices bread

¼ cup butter or margarine

30 plates and forks

Greek Minted Melon and Grapes

(two times the recipe in the student book)

2 cups plain yogurt

¼ cup honey

1 teaspoon grated ginger or ½ teaspoon powdered ginger

8 cups seedless grapes

2 Tablespoons minced fresh mint

4 medium melons

30 forks and cups or bowls

Suggested fruits: apricots, banana, mango, papaya, tangerine, lime, lemon, plums, prunes, melons (different varieties), pomegranate (cut open), cranberries, raspberries, huckleberries, grapes, kiwifruit, kumquat, rhubarb, pineapple, nectarines.

If your class is large, you may want to divide the class into teams for this activity. Or students can write down the missing fruit on a piece of paper.

1. Place each one of the fruits on a platter. Discuss names of each fruit with the group.
2. Once all the students seem familiar with the fruits, turn your back to the students and remove one of the fruits from the platter.
3. Turn back around and ask the group (or team) to identify the missing fruit. Repeat the process until all fruits have been identified.
4. Game can be repeated and will proceed faster as students remember names of each fruit.
5. At end of game, cut up some of the fruits for smelling, tasting, or texture exploration.

You can play this game with any food group where your class is having trouble identifying specific varieties.

Relay race. Divide class into teams. Instruct teams that each person in turn must race to a designated point, say a food contained in a designated food group, and race back. (To make this more difficult, you might want them to add how many servings per day are recommended from that food group.) Or you may designate a particular nutrient and have the students call out a food containing that nutrient. You can have vitamin A races, vitamin B races, protein races, etc.

Here are some relay ideas:

Running backwards

Crawling

Racing in sacks

Wheelbarrow races

Hopping races

Balance races (students must balance paper plates or other objects on their head as they race)

Tiptoe or walk on heels

Nutrition goals

What did I eat?

- Identify personal food intake and eating habits based on dietary system (e.g., U.S. Dietary Guidelines).

Story/team report/class discussion

- Learn more about the foods eaten in Mexico (less meat, more beans, vegetables, fruits) and different eating customs.

Fruits

- Identify different fruits, i.e., tropical, temperate, seasonal. Discuss important features of fruit (water, fiber) and optimum number of servings per day.

What good are nutrients, anyway?

- Identify nutritional needs for growth and development.

You are what you eat

- Visible demonstration of difference between good and poor nutrition. Identify eating habits that promote or detract from feeling good.

Recipes

- Experience a wide variety of healthful foods.

Fruit ID game

- Learn a variety of fruits.

Relay races

- Learn food groups and what foods are in which groups.

Story: Cactus leaves, jicama, and mangoes

"Where the heck are we?" asked Marcus, always the first of the Nutri-Kids to open his mouth. "We're not in Oregon anymore, that's for sure."

"We're in a little town called La Peñita," said Ms. Santos. "It's on the Pacific Coast, too, just like a lot of towns in Oregon. But it's much further south. That's why it's so much warmer here. But you kids don't want a geography

lesson, you want to learn about food, right?"

"Right on," yelled the Nutri-Kids.

The Nutri-Kids and their teacher strolled over to the main street, where people were selling fruits and vegetables in open-air markets.

"This stuff's not so weird," said Marcus, looking at the fruits and vegetables in one small shop. "There are tomatoes, watermelon, and pineapples. What are those things over there?"

"These are papayas, and those are mangoes," said Carlos. "We eat a lot of them at my house. My father was born in Mexico."

"What's this? It looks like a hairy, brown turnip!" laughed Liz.

A small voice piped up from behind the counter. "That is jicama (pronounced HI-cah-ma). It's crunchy and sweet. Want to try?"

"Who are you?" asked Liz.

"I am Tia. This is my mother's shop."

"How come you speak English so well?" asked Marcus.

"We learn English in school. Here, have some jicama. Then tell me why you are here."

"We're visiting different countries to learn about the food they eat," said Carlos. "This is our first stop."

"Hey, this stuff's not half bad," said Marcus, his mouth full of jicama. "What other kinds of weird food do you eat here?"

Tia pointed to different piles of vegetables. "To us this food is not strange. It is what we eat every day. Here are chili peppers, lettuce, zucchini, platanos (pronounced PLA-ta-nos), and cactus leaves."

"Cactus leaves? Yech! Do people really eat those things?" said Marcus.

Tia laughed. "But after you boil them they are very good. Platanos, too. See how they look like big bananas? Sometimes we fry them, or put them in a stew. I like platanos very much."

"What about these bananas? asked Tanisha. "They're tiny!"

"Those are apple-bananas. They grow on plantations very near here. Try one. They are so good!"

"Hey," mumbled Carlos with his mouth full. "She's right. They may be little but they are sure good."

"Tia, what does your family usually eat besides beans, fruits, and vegetables?" asked Carlos.

"We eat lots of tortillas," said Tia. "We eat them at almost every meal—with beans, with meat, with lettuce and tomatoes.

"We also eat lots of fresh fish, shrimp, and oysters. And we make juice from fresh fruits, like guava or watermelon. For snacks, we can buy a mango on a stick, or ice cream. Another thing we like very much is 'pan dulce'—that's sweet bread. Sometimes my mother bakes it and sometimes we buy it at the store."

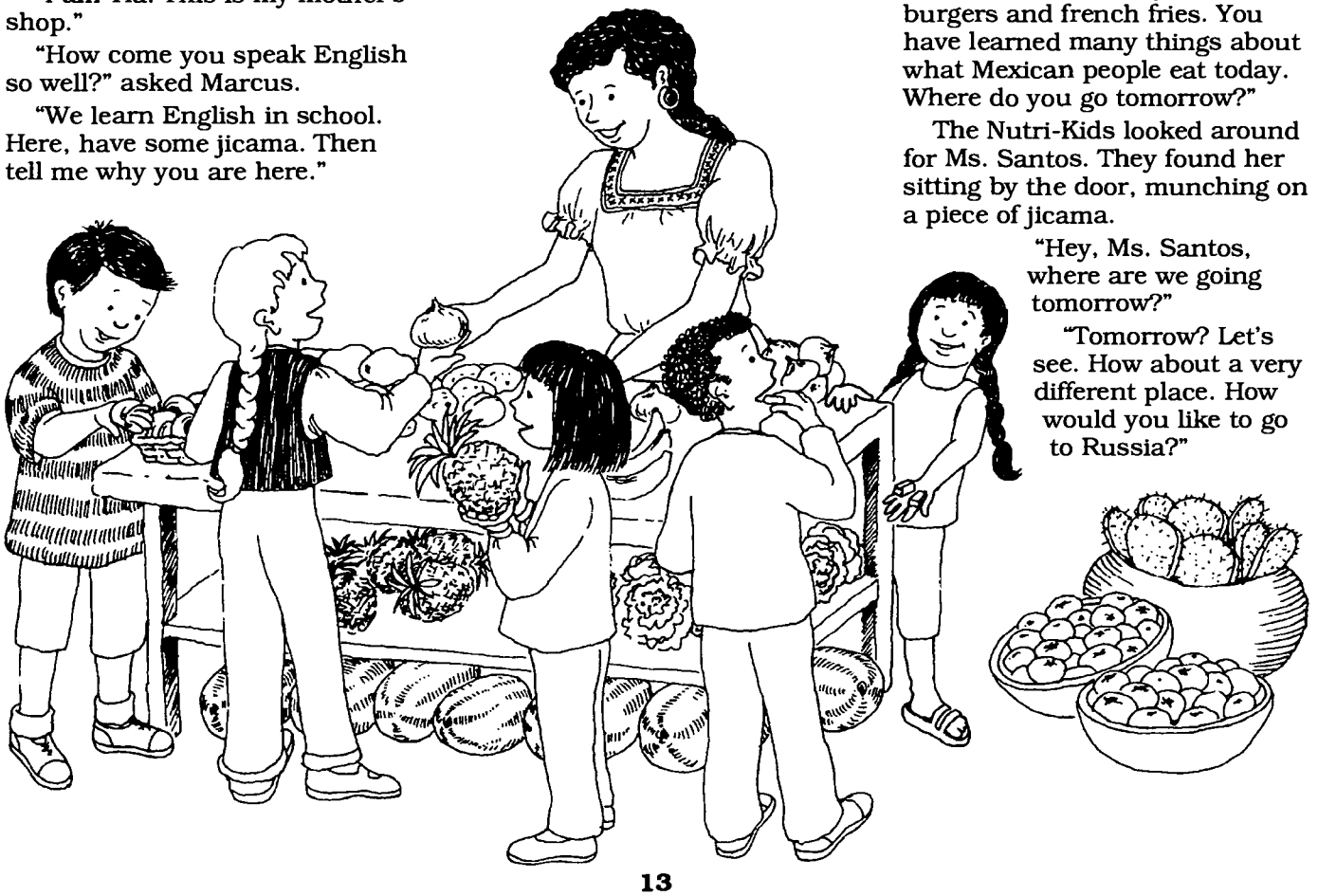
"Wow, I never thought there was so much cool food in Mexico," said Marcus. "I thought all you ever ate was beans."

Tia laughed again. "And we think Americans only eat hamburgers and french fries. You have learned many things about what Mexican people eat today. Where do you go tomorrow?"

The Nutri-Kids looked around for Ms. Santos. They found her sitting by the door, munching on a piece of jicama.

"Hey, Ms. Santos, where are we going tomorrow?"

"Tomorrow? Let's see. How about a very different place. How would you like to go to Russia?"



LESSON THREE

Food Choices

The purpose of this lesson is to explore influences on food choices and to demonstrate the body's use for a primary nutrient, calcium.

Options

- What did I eat?
- Story/team report/discussion
- Milk foods
- What good are my arms and legs?
- Recipes
  Yogurt and cucumbers
  Smoothies
- Activities
  Rubber chicken
  Exercise discussion/collage

What did I eat?

See page 6 in the student book.

Team report and class discussion

Team report/story and class discussion follow the same format as in Lesson One, page 8. Russia is a huge country that contains many different climates. The discussion could include why people in some parts of Russia eat things like figs, dates, eggplant, and stuffed grape leaves (in warmer climates), while people in other areas eat foods such as potatoes, eggs, beets, mushrooms, pickled vegetables, and sour cream.

Milk foods

Review page 16 in the student book with the students. Have them draw pictures of foods they know for the alphabet books.

What good are my arms and legs?

Discuss the relationship between nutrition and how the body works.

Recipes

Yogurt and Cucumbers or Smoothies are the suggested recipes for this lesson. They are found in the student book. The recipes include the utensils you will need. See the box for food and serving supplies you will need to prepare the recipes so that about 30 students can taste the foods.

Activities

Rubber chicken. You will need several clean chicken bones, a clear drinking glass, and enough vinegar to fill the glass. This activity demonstrates why bones need calcium.

Explain to the children that bones are living parts of their bodies made of calcium and other minerals. Bones grow—if they don't get longer, you don't get taller. Bones need calcium to get longer. Even adults need calcium. The body uses it for other reasons, too, including keeping your heart beating on time. If you don't eat enough calcium, your body will take the calcium it needs from your bones.

If you have enough chicken bones, break one and let them look at it.

Have one of the students put a bone in a clear glass and let another cover the bone with vinegar. Explain that the vinegar will dissolve the calcium from the bone. Talk about what they expect the bone to look like without calcium.

Assign students to check on the bone by 1) looking and 2) touching it. Check several times a day. (It takes about 12 hours for a wishbone to begin softening noticeably; thicker bones may take several days).

When the bone is fully pliable, pull it from the vinegar, rinse it with water, and pass it around. How would the children move if their bones were like that? How would they protect their brains if their skull was that soft? How would they push a door open? Review foods that provide calcium.

Cucumbers and Yogurt
(two times the recipe in the students' book)

4 cucumbers
2 cups yogurt
4 cloves garlic
4 teaspoons dried peppermint
sprinkle of salt
30 forks
30 plates or bowls

Smoothies
(six times the recipe in the student book)

3 cups yogurt
3 cups fruit juice
6 bananas
24 to 30 ice cubes
sprinkle of cinnamon
30 cups

Exercise discussion/collage

Discussion. Good health doesn't come from eating right alone. Safety awareness, regular exercise, eating right, and making healthy choices are all part of good health.

The benefits of exercise include improved coordination, strengthened muscles and bones, improved circulation, a general improved feeling of health, and improved emotional or mental attitudes. Regular activity makes people feel better. Discuss why exercise is so important for children.

Have students share their favorite form of exercise and why they like it. Is playing the only way to get exercise? Discuss how children who live in different countries may get their exercise (walking to school, carrying water, looking for firewood or fuel, carrying goods to and from the market, bike riding, herding sheep and goats, climbing mountains, etc.).

Collage. Have students make a collage of different ways to exercise, or their favorite ways to exercise.

Have students keep an exercise journal for a few days to see the different kinds of exercise they do each day.

Nutrition goals

What did I eat?

- Identify personal food intake and eating habits based on dietary system (e.g., U.S. Dietary Guidelines).

Story/team reports and class discussion

- Understand why people from different climate areas (but possibly in the same country) eat different foods.
- Review food preservation (sour cream, pickling).

Milk foods

- Identify nutritional needs for growth and development, especially calcium.

What good are my arms and legs?

- Identify relationship between good nutrition and movement.

Recipe

- Experience a wide variety of healthful foods.

Rubber chicken

- Demonstrate why the body needs calcium.

Exercise (discussion, journals)

- Identify connections between exercise, feeling good, and being healthy.
- Expand awareness of how kids in other countries get their exercise.
- Identify kinds of exercise enjoyed each day.

Story: Sour cream, mushrooms, and black bread

"Brrrr. This is definitely not sunny Mexico," said Tanisha. She clutched at her coat, blew on her fingers, and gazed at the huge buildings in Moscow's Red Square. "Not at all."

"That's right," said Ms. Santos. "We're on the other side of the world from Mexico, and a lot further north. We've been invited to a family's apartment for lunch, so we better get going."

Ms. Santos and the Nutri-Kids hopped on the squeaky clean Moscow subway, and soon they came to their stop. They found the right apartment building, and soon were climbing, climbing, climbing up the stairs.

"Welcome. Come in. Welcome," said a woman at the top of the stairs. "You must be the Nutri-Kids from the United States!"

"That's right. And we're pooped, too," said Marcus. "I'm Marcus."

"And I am Tatyana," said the woman. "This is my husband, Sergei, and our son, Piet. Come in. Come in."

Their apartment was very small. But right in the middle of the living room was a round table, full of dishes of food in all shapes and colors. The Nutri-Kids just gaped. Even Marcus, for once, had nothing to say.

"What is all this?" stammered Liz. "I mean, there's so much. I thought we'd just have..."

"You thought the Russians only ate soup, bread, and tea, yes?" said Tatyana. "Well, we do. But many other things too. This is *prostokvasha* (sound it out: pro-sto-KVA-sha). It is like your yogurt, but not as sweet, like buttermilk. Russian people often eat this for breakfast."

"And look at the bread!" whispered Tanisha. "It's beautiful, and black!"

"Yes, Russians love dark, rich, bread," said Sergei. "We buy it fresh almost every day at the bakery. Some days we have to stand in line for a long time before we can buy our bread."

"And this?" asked Tanisha. She was warm now, and her curiosity was loosening her tongue.

Piet finally got brave enough to try out his English. "Sour cream, potatoes, and mushrooms! We love sour cream—in everything!"

"You see, for a long time many of us didn't have refrigerators," Piet's mom explained. "We learned to use sour milk and cream in our cooking. Another thing we use in cooking is hard-boiled eggs. Meat can be very expensive here. We get much of our protein from eggs and dairy products."

"What's this red stuff?" asked Marcus, pointing to a steaming bowl of deep purple liquid.

"That's *borscht*—Russian beet soup. It is a big favorite with many Russians," answered Sergei. "And here are pickled vegetables. Our ancestors used to pickle many foods to make

them last longer. Today we still eat pickled beets, beans, cabbage, and even mushrooms."

"Does everyone in this huge country eat this kind of food?" asked Tanisha.

"Oh no," said Tatyana. "Russia has many different climates and types of food. In the warmer climates, people eat a lot of figs, dates, apricots, nuts, and seeds. And instead of eating bread and potatoes, like we do, they eat rice or corn. They also like to eat lamb or chicken."

"We better sit down and start in on this food," said Ms. Santos. "Tomorrow's another long trip."

"Where are we going next?" asked Marcus. "I was just getting to like it here."

"Tomorrow we head for Africa," said Ms. Santos.

LESSON FOUR

Meat and Other Protein Foods

Lesson Four acquaints students with foods and food customs from Ethiopia. It also introduces the meat and protein food group and explores influences on food choices.

Review

- The link between safety and health.

Options

- What did I eat?
- Story/team report/discussion
- Meat and other protein foods
- What has your head done for you lately?
- "I'm my best friend"
- Discussion—Who's telling me what to eat?
- How we make decisions about what we eat
- Healthy and unhealthy food habits
- Recipes
  Groundnut Soup
  Lentil Salad
  Groundnut Crunch
- Activities
  "Telling secrets"
  Food recall

Story, report, and class discussion

Use same format as Lesson One, page 8.

Meat and other protein foods

Review page 20 in the student book. If you are creating the alphabet book, have them make pages and file them.

What has your head done for you lately?

For the demonstration and student worksheet, see the student book, page 21. You may wish to lead this as a class discussion, creating two poster-sized pictures of Tanisha as a class project, or have the students work on it in teams or individually.

I'm my best friend

Have the children write a story or draw a picture that depicts what they would eat if they were really trying their best to be healthy, or if they weren't.

Which diet is closer to what they actually eat? Have them list two things they could do, beginning tomorrow, that would be a healthy change in the way they eat (e.g., drinking one less soda a week, eating one less candy bar, eating one more vegetable a day).

Begin this activity with a discussion of food habits—behaviors they have that are healthy/not so healthy. Generate a list of as many good food habits as they can name: snack on fruit, eat breakfast every day, snack on vegetables, eat caution foods only after meals.

Who's telling me what to eat?

Discussion about what influences the food we eat: radio and TV advertising, magazine and coupon ads, peers, parents, siblings, etc. Discuss why a company that makes a junk food would want to sell it to kids. Students can have an assignment to watch TV or find examples of ads in magazines that try to portray "empty" food as good food.

Additional topic: Food habits

What are healthy food habits? What are unhealthy food habits? How to start healthy habits and/or discourage unhealthy habits.

Recipes

Select and prepare one of the recipes suggested for this lesson in the student book. Food and serving supplies you will need to prepare the recipes for about 30 students to taste are given in the box on the next page.

Activities

Telling secrets. Have each child write down one of his/her unhealthy or healthy food habits on a piece of paper. Tell them not to sign their name. Collect the papers and re-distribute them. Have each child in turn read out loud what is on his/her paper. Discuss how unhealthy habits could be changed or why the healthy habits are good for the body.

Food recall. No supplies needed.

1. Divide players into two groups.
2. Choose a food group or nutrient.
3. Have each side name a food within that food group or that contains the nutrient.
4. Score a point for the other team if the answering team gives an incorrect answer or fails to answer within 10 seconds.
5. Foods cannot be repeated.
6. The team that reaches 3 points first, wins.
7. Repeat each food group and key nutrient.

Groundnut Soup
(two times recipe in student book)

4 large tomatoes
4 large potatoes
4 medium onions
8 cups water
4 beef bouillon cubes
2 teaspoons salt
4 cups shelled, unsalted roasted peanuts or 2 cups crunchy peanut butter
2 cups milk
½ cup rice
30 small bowls or insulated cups
30 spoons

Lentil Salad
(two times the recipe in student book)

6 cups water
2½ cups lentils
2 carrots
1 green pepper
12 scallions
¼ cup + 2 Tbsp red vinegar
1 teaspoon salt
2 cloves garlic
30 small cups
30 spoons

Groundnut Crunch
(four times the recipe in student book)

1 pound unsalted peanuts
1⅓ cups water
1⅓ cups sugar
2 teaspoons cinnamon
30 paper towels

Nutrition goals

Team report/story

- Acquaint students with food and food habits from Ethiopia.
- Ask questions designed to clarify, gain assistance, or locate information.

Meat and other protein foods

- Identify nutritional needs for growth and development.

What has your head done for you lately?

- Express the relationships among nutrition choices and good health.
- Identify eating habits which promote or detract from physical/emotional well-being.

I'm my own best friend

- Identify eating habits that promote or detract from physical/emotional well-being.

Who's telling me what to eat?

- Identify and evaluate influences on food choices (media, family, economic factors).
- Identify intent of food advertisers.

Recipe

- Experience a wide variety of healthful foods.

Telling secrets, food recall

- Reinforce concepts being introduced throughout nutrition unit.

Story: Eat with your fingers, not a fork

The Nutri-Kids looked at the rugged hills and bright sunlight and smiled. "I don't care where we are. I'm just glad to be warm," said Tanisha.

"It just so happens that today we're visiting Ethiopia," said Ms. Santos. "Ethiopia is in Eastern Africa."

"I thought Ethiopia was one big desert," said Liz.

"No," said Carlos. "There are many kinds of geography in Ethiopia. There are deserts, mountains, and plains."

"That's right," said Ms. Santos. "But right now we have to go on. A family is expecting us for lunch."

After a short walk, the Nutri-Kids entered a round, dark hut. They were at the home of Jarra, his wife, Ama, and their 2-year-old daughter, Jabu.

"Welcome to our house! Welcome to our table," boomed Jarra. He was a tall, thin, dark-skinned man who held his head very high. "Here, first you must have some cool water. Then sit down. We will have a meal."

The Nutri-Kids sat on a low couch near a table. In the middle of the table was a steaming stew, and pieces of bread were flat, soft, and full of holes.

"In this country, we do not use your knife and fork," said Ama in a quiet voice. "Instead, we take pieces of bread and scoop up the stew. Watch me. Now you try."

Marcus tore off a piece of bread, dipped it into the stew and immediately slopped some on his pants. "Oh brother, it's going to be a long lunch," he said under his breath.

"What's in this stew, and what's it called?" asked Carlos.

"This dish is called *wat*," said Jarra. ('Wat' rhymes with 'swat'.) Ethiopians cook many kinds of wat. This one has chicken, onion, lemon juice, hard-boiled eggs, hot peppers, and many spices. Some wats only have vegetables or beans. Some are made with beef."

"What else do you like to eat?" asked Liz.

"Bread. The bread we are eating now is made from millet. We also eat lentils and chickpeas, and curds made from milk. And honey. Honey to us is like heaven."

"Does everybody in Africa eat like this? 'Cause if they do, they sure are lucky," mumbled Marcus with his mouth full. By now he had learned how to "dip and eat."

"No, there are many different cultures in Africa," said Jarra, "and people eat very differently. Some people live where it is very hot. They eat lots of fruits, like mangoes, breadfruit, and bananas. Some people live near the oceans and eat a lot of fish. Many people in Africa are too poor to eat much meat."

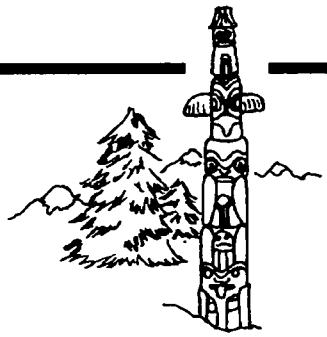
Ama nodded her head. "Yes. Food and water are very important. We have had drought here for many years. The crops have been bad. Many people have gone hungry or died. Before every meal, we give thanks for our food, because so many people have so little to eat."

The Nutri-Kids looked at the floor of the dark hut and let this young woman's words sink in.

After a bit, Ms. Santos stood up.

"We thank you for your wonderful food. And now we must go."

"Thanks for showing us how to eat the wat," said Marcus. "Next time my mom yells at me for eating with my fingers, I'll tell her that's how cool people eat!"



LESSON FIVE

Making Nutrients Matter

This lesson acquaints students with foods from Native American cultures and introduces the concept of fiber. It discusses how students can make nutrients relevant to their lives.

Review

- Nutrients

Options

- What did I eat?
- Story/team report/discussion
- Breads and cereals
- Fiber
- Draw a nutrient
- Recipes
  Succotash
  Indian Pudding
  Popcorn
- Activities
  Find the fiber
  Food ID
  Food sense game
  Relay race
  Food recall

Story/Team Report

Follow the same format as in Lesson One, page 8. Some students may be interested in learning the different kinds of corn that were grown back then (red, pink, blue, spotted, swirled) and the array of products we use today that are based on corn, including corn starch, corn syrup, cornmeal, corn oil, cereal, tortillas, and chips. Back in pioneer days, many children ate cornmeal mush for breakfast or dinner. Bread, puddings, and hotcakes also were made from ground corn.

Breads and cereals

See page 25 in the student book. Review the page as a class. Create alphabet book pages, if desired.

Fiber

Although not a nutrient, fiber, like water, is a very important component of food. Fiber is the indigestible plant material found in plant foods. Fiber helps with regular elimination. A high-fiber diet has been linked with a lower risk of heart disease, a lower risk of certain types of cancer, such as colon cancer, and improved control of diabetes.[2]

High-fiber foods include fruits (with peel and seeds), vegetables, beans, and whole-grain cereals. Have the students make up a list or find pictures of high-fiber foods.

Draw a nutrient

Decide how many nutrients or food components your class can realistically learn. Write them on the board. Ask the children to come up with ways to help them link each nutrient with its use in the body. The mnemonics might be rhymes, riddles, songs, pictures, or alliterative phrases. (Examples: Protein/pretty skin, or a picture of an eye with a capital A in the pupil.) Some students might enjoy the challenge of also linking the food group source—the capital A in the eye could be made of carrots, a phrase might be protein/pretty skin/poultry; a large C might hold together the edges of a slash in an orange (like a C-clamp). The class mural from What good are nutrients, anyway? (Lesson 2) may provide some ideas.

Try to come up with several mnemonics for each nutrient.

Recipe

Select and prepare one or more of the three recipes for this lesson found in the student book. Food and serving supplies you will need to prepare the recipes in quantities for about 30 students to taste are given in the box on the next page.

Activities

Find the fiber. Have students cut out or draw a variety of foods. Paste the pictures on a large sheet of paper. Have individual students pick out the high or low fiber foods.

Food ID. See Lesson Two activities, page 11.

Food sense game. You will need 10–20 samples of familiar food or food stuffs, enough for each group; table, blindfold, tablecloth.

1. Divide class into two groups. Set up a table in the center of the room. On the table, set up food samples.

[2]This information is taken from *Eating Right is Basic,* University of California Cooperative Extension, 4H-Expanded Food and Nutrition Education Program, Publication #4H-EFNEP 4148.

Succotash
(three times the recipe in the student book)

2¼ cups cold milk
¼ cup + 2 Tbsp flour
¼ cup + 2 Tbsp margarine
1 Tablespoon salt
1½ teaspoons sugar
dash of black pepper
4½ cups canned or frozen corn
4½ cups canned lima beans
30 cups or bowls
30 forks

Indian Pudding
(two times the recipe in the student book)

5 cups milk
¼ cup + 2 Tbsp cornmeal
1 cup molasses
¼ cup butter
4 eggs
1 teaspoon cinnamon
½ teaspoon ground ginger
Two 9 x 12 casserole pans
30 plates or bowls
30 forks

2. Blindfold one player from each team and have her led up to the table. She must then identify three foods only by the senses of feel, touch, and smell. The player must stay at the table until three foods are identified correctly.
3. The player takes off the blindfold, runs back and ties it over the eyes of the next person in the group. He is then led to the table by the person who was last blindfolded. This player also stays until he identifies 3 foods. The team to finish first wins.

Relay race. See Lesson Two activities, page 12.

Food recall. See Lesson Four activities, page 17.

Nutrition goals

Team report/story

- Identify foods with origins in Native American cultures.
- Ask questions designed to clarify, gain assistance, or locate information.

Breads and cereals, fiber, draw a nutrient

- Identify nutritional needs for growth and development.

Recipe

- Experience a wide variety of healthful food.

Find the fiber, food ID, food sense, relay race, food recall

- Integrate concepts used in this and previous lessons.

Story: Popcorn, turkey, and acorn soup

"Ms. Santos, the Indians who lived in North America lived there a long time before the white people came, didn't they?" asked Liz. "What food did they eat? They didn't have refrigerators, freezers, stores, or anything."

The Nutri-Kids were traveling on a plane to their next stop. They had a lot of time to think and talk. "Does anyone know the answer to that?" asked Ms. Santos.

"Yeah, they picked a lot of berries," said Marcus.

"I know a little bit," said Carlos. "The people that lived in Mexico before the white men came ate food made from corn. They also ate lots of different kinds of beans."

"That's right," said Ms. Santos. "Did you kids know that the Europeans didn't even know about corn when they first came to the West? The native people had to teach them how to cook with corn."

"What did they make with corn? " asked Liz.

"The Indian people in Mexico ground up the flour and made tortillas—and we still eat them all the time," said Carlos.

"The Indians who lived further north made porridge and flat bread from corn," said Ms. Santos. "They also taught the Europeans about popcorn."

"Hmmm," said Tanisha. "I could use a bag of that right now."

"What else did Indian people eat?" asked Liz.

"Indian people lived all over North and South America, so they didn't all eat the same food," said Ms. Santos. "The tribes that lived near the sea ate seafood, such as fish and clams.

"Some tribes ate mostly the meat they had killed—deer, rabbit, squirrels, bear, wild turkey. They cooked the meat over an open fire. They smoked and dried some of the meat to eat when they couldn't find game to kill."

"Turkey? Turkeys look so weird I thought they came from some place else," said Tanisha.

"No, wild turkeys were another thing the Western world had that Europe didn't. Indians in the southwest grew tomatoes, sweet peppers, and hot peppers. They also ate pine nuts and the leaves of the cactus.

"Indians who lived in the Caribbean taught Europeans about peanuts, the vanilla bean, and cacao beans—that's where chocolate comes from."

"Oh, you're killin' me," moaned Marcus, clutching his stomach. "I need some popcorn covered with chocolate—bad!"

The Nutri-Kids ignored Marcus and went on. "What other foods did native people teach the white people about?" asked Carlos.

"The Indians who lived in South America taught the white people about potatoes, avocados, and tapioca," said Ms. Santos.

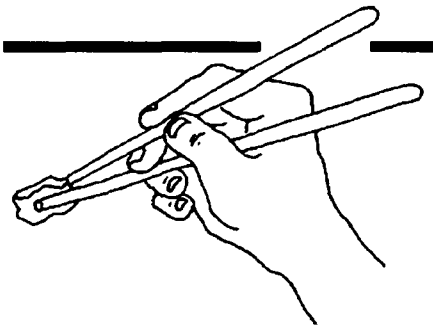
"And did you know that in California, most of the tribes lived on acorns? They ground them up and made them into soup or mush."

"I guess the acorn thing didn't really catch on, did it," commented Liz.

"No, it didn't," admitted Ms. Santos. "But most everything else did. Can you imagine a world without corn? Or beans, tomatoes, turkey, or chocolate?"

"Let's put it this way, Ms. Santos," said Marcus. "I don't want to think of a world without popcorn or chocolate. I want to think of a world with even more chocolate in it."

"That may be the reason you're even on this trip, Marcus," said Ms. Santos. "To learn what else there is in the world to eat besides chocolate. Now the rest of you who don't have chocolate on the brain, tell me how many different foods can you think of that are made from corn?"



LESSON SIX

Making Sense of Servings

This lesson introduces students to food and food culture in China and to different vegetables. It also teaches awareness of recommended numbers of daily servings.

Review

- Mnemonics for nutrients

Options

- What did I eat?
- Story/team report/discussion
- Vegetables
- Broccoli for breakfast?

Recipe

Fried Rice with Vegetables and Tofu

Activities

- Food ID
- Viewless views
- Silent interpreter

Story, team report, and class discussion

Use the same format as Lesson One, page 8. Since Chinese food is eaten by many Americans, students may want to share if they have eaten at Chinese restaurants. Students may enjoy attempting to use chopsticks. Discussion could also include different vegetables found in Chinese food, such as water chestnuts, bamboo shoots, Chinese cabbage (bok choy), and Chinese radish (daikon).

Vegetables

Review nutrients for vegetables. Create alphabet book pages.

Broccoli for breakfast?

See page 29 in the student book. The activity is to create a healthy menu for the entire day, including snacks. You may want to explain how one serving of a dish could include foods from more than one group, for example, broccoli with cheese sauce (vegetable and milk groups), pizza (milk, cereals, meat and/or vegetable groups), cheeseburger (meat, milk, bread and cereals groups), smoothies (fruit and milk groups).

Recipe

Fried Rice with Vegetables and Tofu is suggested for this lesson. Food and serving supplies needed to prepare this recipe in quantities for about 30 students to taste are given in the box.

Activities

Food ID. See Lesson Two activities, page 11.

Viewless views. You will need paper and pencil or crayons for each player and foods with interesting shapes.

Two players sit back to back. One player is given a nutritious food, such as broccoli, cauliflower, a muffin, yogurt, etc. The other player is given a paper and pencil. The first player begins to describe the food without naming it. The second player must draw the food from the description being given. Set a time limit, and display the drawings next to the original objects.

Silent Interpreter. This game is a food version of the old classic "Charades."

1. Divide the class into teams. (Four may be an optimum number.)
2. Get a volunteer from each group to be the interpreter.
3. Interpreters each stand and face their team. Each team sits with their backs toward the other team.
4. Give paper and a pencil to all those who are seated. Give each interpreter a slip a paper with the same nutrition-oriented word written on the paper.

Fried Rice with Vegetables and Tofu
(two times the recipe in the student book)

- ¼ cup + 2 Tbsp vegetable oil
- ½ cup onion
- 1 cup tofu, diced
- 3 cups chopped vegetables (cabbage, green peppers, broccoli)
- 8 cups cold cooked rice
- 2 Tablespoons grated fresh ginger root or 1 teaspoon ground ginger
- ¼ cup soy sauce
- 30 plates or bowls
- 30 forks

5. Tell each team the number of letters in the word.
6. The silent interpreter interprets the word—letter by letter—to his teammates without using any words.
7. Team members cannot speak to each other or make any verbal sounds. They write down what letter they believe is being acted out by their interpreter.
8. Set a time limit for each letter. Once time has run out, there is no repetition of any letters.
9. When every letter has been covered by the interpreter, the seated players have 30 seconds to discuss the word and come to an agreement of what the word was. The first team to identify the word wins.

Nutrition goals

Story/team report

- Acquaint students with Chinese food and food customs.
- Ask questions designed to clarify, gain assistance, or locate information.

Vegetables

- Acquaint students with an assortment of vegetable varieties.
- Identify nutritional needs for growth and development.

Broccoli for breakfast?

- Identify daily serving recommendations for all food groups.

Recipe

- Experience a wide variety of healthy foods.

Food ID, viewless views, silent interpreter

- Reinforce concepts taught in previous lessons.

Story: Chopsticks and bean curd

"This is our last stop, so enjoy it while you can," said Ms. Santos to the four Nutri-Kids as they climbed down from the trolley in San Francisco.

"This is so much fun. I think I could keep traveling and eating foreign foods the rest of my life," sighed Tanisha as she buckled her fanny pack. "But wait a minute. We're supposed to be in San Francisco, but it sure looks like we're in another country. I can't read any of these signs."

"We're in San Francisco's Chinatown," said Ms. Santos. "Many of the Chinese people here still speak and read Chinese. They eat the same kind of food that people in China eat. Let's go into one of these restaurants and see what we can find out."

The Nutri-Kids walked down the narrow streets of Chinatown, gaping at the tiny shops with their red flags and bright window displays. Some shops sold only herbs and strange-looking roots and powders. Other shops sold just fruits and vegetables. The smell of cooking food was everywhere.

"Hmmm. I hope we get somewhere soon," said Marcus. "I'm starving."

"You're always starving," said Tanisha. "How come you're never just hungry like regular people?"

The Nutri-Kids came to a restaurant and sat down. The first thing they noticed was the chopsticks.

"You mean, people still eat with these things?" asked Liz, trying to make the chopsticks work. "I could spend all day just trying to pick up a piece of celery."

A waiter came up and introduced himself. "We're trying to learn about Chinese foods," Tanisha told him. Somewhere on this trip, Tanisha had dropped her shyness. "Can you tell us what Chinese people eat?"

"Well, said the waiter. "I can tell you one thing. Chinese people love to eat! And China doesn't have very much farm land, so we as a people have learned to eat many different kinds of foods.

"For instance, to grow meat means you have to grow grain to feed the animals. So instead of eating a lot of meat, we cut it up into little pieces and eat it with vegetables in a sauce. We do the same thing with fish. And we have rice at every meal, even breakfast."

"Does everybody in China eat the same kind of food?" asked Carlos.

"No. In some parts of China, people like very hot food made with garlic and red pepper. That is Szechwan-style food. In another part of China, people like to eat noodles and steamed dumplings. That is called Mandarin-style food.

"Many Chinese also like to eat food that has been cooked inside a wrapper, like egg rolls or bean cakes. Almost everywhere in China people eat tofu, or bean curd. That is a kind of cheese made from soy beans."

"What vegetables do you eat?" asked Liz.

"We like some of the same vegetables as you, like eggplant and celery. We also like ginger root, bamboo shoots, water chestnuts, bean sprouts, peas in the pod, bok choy (Chinese cabbage), and daikon (pronounced DIE-kon).

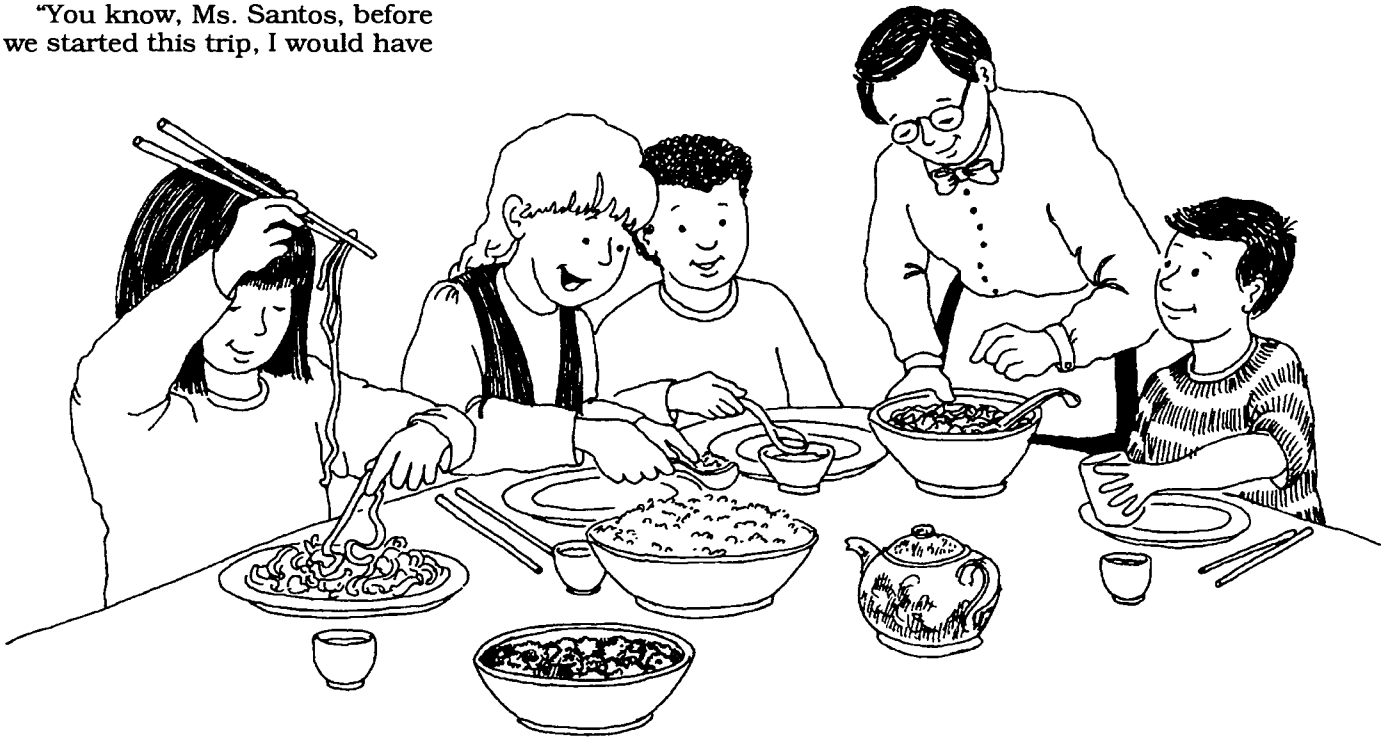
"But the best way to find out about Chinese food is to eat

some! Here are some menus. I'll be back soon to get your order."

"OK, Nutri-Kids, this is your chance to eat the strangest food you can find," said Ms. Santos. "What'll it be, crispy pig's ears, curried turnips, or bean curd with vegetables?"

"You know, Ms. Santos, before we started this trip, I would have said 'Oh, gross' to all those foods," said Marcus. "Now I want to try them. And when I get home, I'm going to get my mom to learn how to make some of these foods. They may be different, but they're really awesome, too. Know what I mean?"

"I sure do," said Ms. Santos, smiling. "Now start choosing your food. Tonight we go back to Oregon, and next week you get to tell the rest of the class everything we've learned."



LESSON SEVEN

Review

Lesson Seven familiarizes students with information sources on nutrition and reviews and reinforces previous lessons.

Options

- What did I eat?
- Pass it on 1 or 2
- Where do I learn more?
- Mixed messages
- Activities
  Selling food
  Silent interpreter
- Post-test
- Teacher evaluation

Pass it on

1) Compile your alphabet books and gift-wrap them in newspaper comic pages to give to local preschools or daycare centers; or 2) if you have chosen not to make the books, have the children create a radio/television spot to help children in other countries choose healthy foods. If they enjoy challenges, have them create a television advertisement without using words—so it doesn't matter what language their audience speaks. Encourage the use of native and ethnic foods rather than expensive western imports like breakfast cereal and white bread.

Where do I learn more?

Gather together some reliable forms of nutrition information. Have the children bring anything that mentions nutrition.

Discuss the different sources of information: Backs of cereal boxes, magazines, parents, store advertisements, books. What type of information is provided?

Some information may not be based on science. Food isn't magic or medicine. Buying certain foods won't give you friends, muscles, or good looks.

Advertising pays for newspapers, magazines, radio, and television. It gives businesses a way to tell people what they have to sell. Ads can be interesting, informative, and accurate.

Focus on showing your class reliable nutrition information. You can consult your county Extension office, WIC clinics, and health clinics. You might have a dietitian or home economist speak to the class.

Mixed messages

See page 31 in the student book. Use this as an opportunity to discuss more difficult choices concerning nutrition, situations where the best choice may not be apparent right away.

For example, which is the more nutritious lunch—a soda, tunafish sandwich on whole-wheat bread, and chips; or a cheeseburger and milkshake? Cheese is a healthy food, but some types have a lot of fat. How many times a week is it good to have pizza? Talk about how many choices will depend on what else has been eaten that week or that day.

Activities

Selling food. Divide students into teams. Have each team select a nutritious food, then create a short ad to try and sell food to other students. Give them 10–15 minutes to create the ad. Have each group act out its ad in front of class. Class can decide by audience gauge if the ad "works" or doesn't.

Silent interpreter

See Lesson Six, page 24.

Post-test

We can better evaluate these materials and improve them if you give the children the pre- and post-tests and send a summary with your evaluation.

Nutrition goals

What did I eat?

- Identify personal food intake and eating habits based on dietary system (U.S. Dietary Guidelines).

Pass it on

- Extend acquired information to other groups.

Where do I learn more?

- Identify and evaluate influences on food choices (e.g., media, family, economic factors).
- Identify reliable sources of information (e.g., dietitian, product labels).

Mixed messages

- Identify considerations in making nutritional choices.

Selling food, silent interpreter

- Reinforce concepts taught in this and other lessons.

APPENDIX A

Teacher Evaluation for Oregon EFNEP Youth
Nutri-Kids Go Around the World

Please compete this evaluation form and return it as soon as possible to the address on the next page. Thank you for your cooperation and input. Feel free to add additional comments.

How many children participated? _____ How many were not third graders? _____

Teacher Guide

1. Did the teacher guide provide you with the proper amount of information to be an effective teacher of these lessons? *Yes* *No*
   Comments:

	Very good		Okay		Poor
2. How easy to use was the publication?	5	4	3	2	1
Everything I needed was in each lesson	5	4	3	2	1
Teaching activities helped involve students	5	4	3	2	1
Story format was useful	5	4	3	2	1
Story content taught lesson objectives	5	4	3	2	1

Please elaborate:

2a. Was the publication organized in the best possible fashion? *Yes* *No*
How would you improve its organization?

3. Did you read the stories or create your own lessons? *Read* *Created my own*
   Comments:

4. What would you do to improve the teacher guide?

Student Book

1. Rate the materials' age-appropriateness for your students:

1	2	3	4	5
Too easy		*Just right*		*Too advanced*

2. Did you include food preparation? *Yes* *No* (If no, skip the next two questions.)

   If yes, to what extent did preparing foods reinforce lesson concepts?

5	4	3	2	1
Very useful	*Somewhat useful*	*So-so/Unsure*	*Slightly useful*	*Not at all*

   Was food preparation an effective means of involving parents in nutrition education?

5	4	3	2	1

   If no, please explain why you did not include food preparation. If you found effective alternatives, please describe them on a separate sheet.

Cooking is not allowed in my district *No time* *No money*
Other *(please elaborate)*

Overall effectiveness in teaching nutrition concepts:

Rate the combined teacher/student books. Do they teach students the ODE nutrition concepts?
5 = very effective and 1 = ineffective:

Specific concepts:	*Very Effective*				*Ineffective*
Experience a wide variety of healthful foods	5	4	3	2	1
Identify personal food intake and eating habits	5	4	3	2	1
Identify eating habits that promote or detract from physical/emotional well-being	5	4	3	2	1
Identify nutritional needs for growth and development	5	4	3	2	1
Identify methods of food preparation and preservation that prevent deterioration	5	4	3	2	1
Identify and evaluate influences on food choices	5	4	3	2	1
Identify reliable sources of nutrition information	5	4	3	2	1
Express the relationship among nutrition behaviors, levels of fitness, safe living, and stressor/risk management	5	4	3	2	1
Overall effectiveness	5	4	3	2	1

Overall

1. Did your students enjoy the lessons?

   Very much *Some* *Not at all*

2. What, if anything, did you observe that would indicate the children's behavior changed as a result of the lessons? (e.g., school lunch choices, lunchbox contents, mention of recipes duplicated at home, less waste of vegetables, better consumer choices)

3. What are the strengths of these materials?

4. What are the weaknesses of these materials?

5. What specific changes would you like to see? What do you want kept?

6. What other resources do you need?

Feel free to attach any additional comments or suggestions. Return to: 4-H EFNEP Youth, Milam 161, Oregon State University, OR 97331-5106. Thank you for your help evaluating and improving these nutrition education materials.

APPENDIX B

Bibliography

Story list

Africa

"Mumbele and the Goats," a tale of how goats came to live with people and how important their milk is to the tribe. From *When the Stones Were Soft: East African Fireside Tales*, by Eleanor B. Heady.

"The Famine and the Fruit Tree." A mystery that incorporates famine, the value of politeness, the realization that not everyone wants the best for others, and reward for service.

"The Coming of the Yams." A man struggles to overcome fears of conquest to obtain a food another tribe grows that could end his tribe's periodic famine. Tale explains why inheritance is from uncle to nephew in Ghana.

Asia

Ba-nam by Jeanne Lee. A young girl's first visit to the cemetery on the day set aside to honor the dead.

China

The Terrible Nung Gwama. A Chinese folktale adapted by Ed Young. A girl delivering cakes to her parents stands up to a monster she must later outwit.

Greece

The Girl Who Cried Flowers. Title tale is a warning against losing yourself by trying to keep others happy. Olive groves and other foods and customs of Greece. (May be too advanced for third-graders, depending on the classroom.) Schocken Books, New York, NY. 1981.

Mexico

"Salvador and the Coyote." Salvador the donkey decides he doesn't want to be a coyote after all when he learns what coyotes eat. One of the tales in *In Mexico They Say* by Patricia Fent Ross. Alfred A. Knopf, New York, NY. 1942.

Pacific Islands

"A Contest with Skillful Spirits." A young boy wins a contest to bring food plants to his people. From *Hawaiian Legends of...* by Vivian Lauback Thompson. Holiday House, New York, NY. 1969.

How My Parents Learned to Eat by Ina Friedman. A Japanese/American couple learn about food etiquette as told by their child.

"The Rice Cake that Rolled Away." Hard work and kindliness get their supernatural reward. A story in *The Magic Listening Cap* by Yoshiko Uchida (Japan). Harcourt Brace, New York, NY. 1955.

Russia/Eastern Europe

My Mother is the Most Beautiful Woman in the World by Rebecca Reyher. A child lost during the wheat harvest teaches adults a lesson about beauty. Lothrop, Lee and Shepard. 1945.

Rechenka's Eggs by Patricia Polacco. Ukranian egg-decorating customs.

"Twelve Months." Cruel stepmother, polite hard-working girl, rewards of greed and goodness; flowers and fruits in season. In *From Russian Fairy Tales* by Moura Budberg. F. Warne, New York, NY. 1967.

Scandinavia

The Boy Who Ate More Than the Giant and other Swedish Folktales, by Ulf Lofgren. The title story is about a boy who outwits and kills a wealthy giant. The boy is a goatherder; some foods are mentioned.

Various

Favorite Folktales from around the World, edited by Jane Yolen.

Food/recipe resources

Many of these resource can be found at local libraries if they are not in your school library.

Slumps, Grunts and Snicker-Doodles: What Colonial Americans Ate and Why, by Lila Perl. Seabury Press, NY 1975.

International Food Library, Rourke Publications, Inc. Vero Beach, FL 32964. 1991.

Each book in this series is entitled *Food in* _____ (fill in the name of the country). The books give geographical and cultural sketches and discuss the foods and food customs of each country. Slightly dated.

Cooking in the _____(fill in the name of the country) *Way.* Early Menu Ethnic Cookbooks. Lerner Publications Co., 241 1st Ave. Minneapolis, MN 55401. 1988.

These books give cultural sketches and review culinary appliances and foods and spices used daily in each country.

Many Friends Cooking: International Cookbook for Boys and Girls by Terry Touff Cooper and Marilyn Ratner. Philomel Books, New York. (Published in conjunction with the United Nations Commission for UNICEF.)

Colorful collections of recipes from around the world, marked for easy, moderate, or hard in terms of cooking. 1980.

APPENDIX C

Serving Sizes Reference Chart

Food Group	One Serving	Main Nutrients
Breads and Cereals* 6 to 9 servings each day (choose low-fat, whole-grain breads)	1 small tortilla ½ cup grits 1 biscuit or muffin 1 slice bread ½ hamburger bun ½ cup rice ½ cup cooked noodles or hot cereal	B vitamins Iron Protein Fiber Carbohydrates
Vegetables 3 to 4 servings each day	½ cup cooked or canned vegetables ¾ cup raw vegetables 1 medium-sized vegetable (tomato, carrot, or potato)	Vitamin A Vitamin C Fiber Carbohydrates
Fruits 2 to 3 servings each day	1 medium sized fruit (nectarine, pear, orange) ½ cup fruit juice (4 to 6 ounces) ½ mango or banana ¼ cantaloupe ¾ cup watermelon, grapes, pineapple, berries	Vitamin A Vitamin C Fiber Carbohydrates
Milk Foods 2 to 3 servings each day	1 cup milk (all kinds) 2 cups cottage cheese 1½ cups ice cream 1½ ounces hard cheese	Calcium Protein Vitamin D (if added)
Meat and Other Protein Foods **poultry** **eggs** **seafood** **dry beans** 2 to 2½ servings each day	2 to 3 ounces fish, beef, pork, chicken, turkey, clams, lamb, shrimp, or liver 1 to 2 eggs ½ to 1 cup cooked dried beans 3 to 4 Tablespoons peanut butter	Protein Iron B vitamins

* Number of servings listed is for 7- to 10-year-olds. Growing teens and active adults need up to 11 servings of breads and cereals.

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